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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,432	03/27/2006	Yuzuru Fujiwara	450104-05628	9083

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EXAMINER

WONG, LUT

ART UNIT

PAPER NUMBER

2129

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/531,432	<b>Applicant(s)</b> FUJIWARA, YUZURU	
	<b>Examiner</b> Lut Wong	<b>Art Unit</b> 2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/15/2005</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This office action is responsive to an AMENDMENT entered March 22, 2007 for the patent application 10/531432

The First Office Action of March 01, 2006 is fully incorporated into this Non-Final Office Action by reference.

### ***Status of Claims***

Claim 15 is elected without traverse and pending. Claims 16-28 are cancelled.

### ***Information Disclosure Statement***

The information disclosure statement filed 4/15/2005 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the references are in foreign language. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

### ***Specification***

#### **Content of Specification**

- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

The disclosure is objected to because of the following informalities: The summary of the invention is either missing or too long. The only relevant heading in the specification is "Disclosure of the Invention". However, contents in such section discuss both background and current invention. The summary of the Invention should be a brief and general statement of the Invention, not a couple of pages long that discuss both background and current invention. Appropriate correction is required.

### ***Specification***

A substitute specification including the claims is required pursuant to 37 CFR 1.125(a) because the specification is full with idiomatic English (e.g. [0016] "is carried out"; [0020] of PgPub states "a relation type database mode which *is* another typical example *is* widely used...").

A substitute specification must not contain new matter. The substitute specification must be submitted with markings showing all the changes relative to the immediate prior version of the specification of record. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter

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must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. An accompanying clean version (without markings) and a statement that the substitute specification contains no new matter must also be supplied. Numbering the paragraphs of the specification of record is not considered a change that must be shown.

A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

### ***Claim Objections***

Claim 15 is objected to because of the following informalities: change "evaluating generated new information" to --evaluating the generated new information--; change "on a judged result" to --on the judged result--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claim 15 requires "means" plus functions. Since applicant's disclosure does not provide any structure for the functional means, the metes and bounds of the claims cannot be determined. In additions, such "means", when interpreted in light of fig.1, is reasonably interprets as a software routines. Since there is no physical structure provided in the claim, the metes and bounds of the "means" cannot be define.

Claim 15 recites "a learning/thinking machine". Since the symbol '/' can be interpreted many different ways, it is not clear whether applicant is intend to claim (1) a learning machine only; (2) a thinking machine only; (3) a learning OR thinking machine; (4) a learning and thinking machine. It is presumed to mean (4) for the purpose of compact prosecution.

The term "sufficiently" in claim 15 is a relative term which renders the claim indefinite. The term "sufficiently" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

**Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

For example, claim 15 recites “means for analyzing information based on the extracted semantic relation and in which a link indicates a semantic relation between a node and a node for indicating meaning so as to sufficiently express a semantic means, said node and said link have structure so as to exchange their roles and a knowledge expressed by said node and said link is stored”. It is not clear what applicant is intended to claim. It is presumed to mean “the semantic is represented by nodes and links, wherein a node indicates meaning, and a link indicates relations between nodes” for the purpose of compact prosecution.

Furthermore, claim 15 recites “means for generating new information according to predetermined inference by verifying a knowledge based in which knowledge structured based on said semantic relation is stored in response to an inquiry or request with a unit in which a relating node is stored”. It is not clear what applicant is intended to claim. It is presumed to mean “means for generating new information according to predetermined inference” for the purpose of compact prosecution.

Moreover, claim 15 recites “means for deciding an optimal solution based on a judged result; an input unit for receiving an inquiry or request from the outside; and verifying means for verifying said inquiry or request from the outside with said knowledge base, wherein if it is determined by the verified result of said verifying means that said inquiry or request are completely coincident with said knowledge base, then

understanding of such coincidence is transmitted to a central unit, if it is determined by the verified result of said verifying means that said inquiry or request are partly coincident with said knowledge base, then said knowledge based and said unit in which said relating node is stored are verified and said information generating means supplements insufficient information and generates information so that knowledge structured by said node and said link based on said semantic relation has new semantic content and new semantic relation". It is not clear what applicant is intended to claim. What is the outside means in the limitation "from the outside"? what is "a central unit"? Which is the said unit? What is done in "supplements insufficient information"? The whole phase is unclear and is presumed to mean self-organizing in according to fig. 1 for the purpose of compact prosecution.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claim 15 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

Claim 15 recites the limitation "machine" with means plus function. Since applicant's disclosure does not provide any structure for the functional means, such means can be considered as software means. Hence, the machine can be considered as software per se. Software is not one of the statutory categories, thus claims drawn to software per se is non-statutory.



***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claim 15 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by**

**Yuzuru Fujiwara (“learning/thinking mechanism and its applications to hyper brain computers” 1999), an admitted prior art (APA) by the applicant and translated by Mcelory translation company. Examiner Notes (EN) and related citations are denoted in parenthesis.**

Claim 15. APA anticipates a learning/thinking machine based on a structured knowledge (See e.g. abstract and title) comprising:

means for extracting a semantic relation from collected information in accordance with a plurality of rules (See e.g. abstract. See also pgs. 16-17 “turning of information into resource”);

means for analyzing information based on the extracted semantic relation (See e.g. abstract. See also pg. 19-20 “manipulation of structured information”) and in which a link indicates a semantic relation between a node and a node for indicating meaning so as to sufficiently express a semantic means, said node and said link have structure so as to exchange their roles and a knowledge expressed by said node and said link is stored (See e.g. pg. 11 on nodes and links. See also table 1 on multinomial relation);

means for generating new information according to predetermined inference (See e.g. abstract. See also pg. 20-21 "Semantic processing" on generating new information) by verifying a knowledge based in which knowledge structured based on said semantic relation is stored in response to an inquiry or request with a unit in which a relating node is stored (See e.g. abstract. See also pg. 20-21 "Semantic processing" on candidate answers and hypotheses);

means for evaluating generated new information (See e.g. abstract. See also pg. 20-21 "Semantic processing" on evaluating/selecting the result);

means for judging sequencing of evaluated results (See e.g. abstract. See also pg. 20-21 "Semantic processing" on evaluating/selecting the result);

means for deciding an optimal solution based on a judged result; an input unit for receiving an inquiry or request from the outside; and verifying means for verifying said inquiry or request from the outside with said knowledge base, wherein if it is determined by the verified result of said verifying means that said inquiry or request are completely coincident with said knowledge base, then understanding of such coincidence is transmitted to a central unit, if it is determined by the verified result of said verifying means that said inquiry or request are partly coincident with said knowledge base, then said knowledge based and said unit in which said relating node is stored are verified and said information generating means supplements insufficient information and generates information so that knowledge structured by said node and said link based on said semantic relation has new semantic content and new semantic relation (See e.g. fig. 3 key 5 on "self-organized knowledge resource").

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lut Wong whose telephone number is (571) 270-1123. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent David can be reached on (571) 272-3080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Lut Wong/  
Patent Examiner, AU 2129

  
DAVID VINCENT  
SUPERVISORY PATENT EXAMINER